AMENDMENT TO THE CLAIMS

1-22.   (canceled)

23.   (New) A local videoconferencing device for a videoconferencing system having a local videoconferencing device with a video display and a remote videoconferencing device with a video display interconnected through a network, the local videoconferencing device comprising:

a videoconferencing bar, wherein the videoconferencing bar comprises,

a video sensor for capturing images,

a plurality of microphones for capturing sound, and

a plurality of speakers for producing sound,

wherein the video sensors, the microphones and the speakers are arranged in fixed positions in the videoconferencing bar;

a processing unit coupled to the videoconferencing bar; and

a communication interface coupled to the processing unit and other remote videoconferencing devices through the network;

wherein the processing unit is operative to produce at least a first video stream from signals received from the video sensor and an audio stream and an audio source position signal from signals received from the microphones;

wherein the processing unit is operative to receive at least one video stream, one audio stream and one audio source position signal from a remote videoconferencing device; and

wherein the processing unit is operative to drive the plurality of speakers to reproduce sound according to the received audio stream and audio source position signal.

24.   (New) The videoconferencing device of claim 23, wherein the video sensor is operative to produce high resolution video stream, wherein the first video stream is of a first resolution, wherein the processing unit is operative to produce a second video stream, and wherein the

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second video stream is of a second resolution and is representing an area in the first video stream.

25.   (New) The videoconferencing device of claim 24, wherein the first resolution of the first video stream is 700x400 pixels, and wherein the second resolution of the second video stream is 300x200 pixels.

26.   (New) The videoconferencing device of claim 24, wherein the maximum resolution of the video sensor is 3000x2000 pixels.

27.   (New) The videoconferencing device of claim 24, wherein the second video stream represents images of a speaking videoconference participant.

28.   (New) The videoconferencing device of claim 27, wherein the second video stream follows the speaking videoconference participant and changes when the speaking videoconference participant changes.

29.   (New) The videoconferencing device of claim 23, wherein the processing unit is operative to generate the position signal based upon the magnitude differences of audio signals received from the plurality of microphones.

30.   (New) The videoconferencing device of claim 23, wherein the processing unit is operative to synchronize the phases of the signals from the video sensor and a video stream output by a remote videoconference device for display on a remote video display.

31.   (New) The videoconferencing device of claim 23, wherein the processing unit is operative to drive the plurality of speakers to reproduce sound according to the received audio signal and audio source position signal by selectively driving one or more speakers in response to the received position signal from the remote videoconferencing device to play the audio signal corresponding to the image of the at least one video stream.

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32.   (New) The videoconferencing device of claim 23, wherein the plurality of microphones are arranged in an n-fire configuration in the videoconferencing bar.

33.   (New) The videoconferencing device of claim 23, wherein the videoconferencing bar is horizontal and operable to be placed on top of a video display.

34.   (New) The videoconferencing device of claim 33, further comprising two side bars having plurality of microphones and speakers, wherein the two side bars are vertical and are operable to be placed on the two sides of the video display.

35.   (New) The videoconferencing device of claim 23, wherein the video sensor has a wide viewing angle.

36.   (New) The videoconferencing device of claim 35, wherein the wide viewing angle is 65 degrees.

37.   (New) The videoconferencing device of claim 35, further comprising a pan motor to increase the viewing angle of the video sensor.

38.   (New) A method for videoconferencing, wherein a plurality of videoconferencing devices are interconnected through a network, wherein each videoconferencing device comprising a videoconferencing bar having a video sensor, a plurality of microphones and speakers, a processing unit, a video display and a network interface, the method comprising:

        capturing video images with the video sensor in the videoconferencing bar;

        capturing audio signals with the microphones in the videoconferencing bar;

        receiving the video images and the audio signals at the processing unit;

        generating a first video stream from the video images and an audio stream and an audio position signal from the audio signals;

        transmitting the first video stream, audio stream and audio position signal to a remote conferencing device;

        displaying the first video stream on a video display at the remote conferencing

device; and

driving the speakers at the remote conferencing device to reproduce sound according to the audio stream and the audio position signal.

39.   (New) The method in claim 38, wherein the video images are of high resolution, wherein the first video stream is of a first resolution.

40.   (New) The method in claim 39, further comprising the processing unit generating a second video stream, wherein the second video stream is of a second resolution and is representing an area in the first video stream.

41.   (New) The method in claim 40, wherein the second video stream represents images of a speaking videoconference participant.

42.   (New) The method in claim 38, wherein the audio position signal is generated based upon magnitude differences of audio signals received from the plurality of microphones.

43.   (New) The method in claim 38, wherein the processing unit synchronizes phases of the signals.

44.   (New) The method in claim 38, further comprising the processing unit driving the plurality of speakers to reproduce sound according to the received audio stream and the audio position signal by selectively driving one or more speakers in response to the received position signal from the remote videoconferencing device to play the audio signal corresponding to the image of the at least one video stream.

45.   (New) A method of operating a processing unit for a local videoconference system, the processing unit controlling a plurality of speakers, the method comprising:

receiving at the processing unit from a remote videoconferencing system a position signal and an audio signal from an audio source, wherein the position signal is

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indicative of a position of the audio source relative to the remote videoconferencing system; and

selectively driving at least one of the plurality of speakers in accordance with the position signal to broadcast the audio signal, wherein the driven speakers are indicative of the position of the audio source relative to the remote videoconferencing system.

46. (New) The method of claim 45, wherein audio source comprises a videoconference participant.

47. (New) The method of claim 45, wherein the position signal indicates an angle between the audio source and the remote videoconferencing system.

48. (New) The method of claim 45, wherein only one speaker is driven.

49. (New) The method of claim 45, wherein the speakers are positioned in a linear array.

50. (New) The method of claim 45, wherein position signal is derived at the remote videoconferencing system from microphone signals generated by a plurality of microphones.

51. (New) The method of claim 50, wherein the microphones and speakers are both positioned in a linear array.

52. (New) A method of operating a processing unit for a local videoconference system, the processing unit receiving input from a plurality of microphones, the method comprising:

receiving an audio signal from an audio source at the plurality of microphones, each microphone generating a microphone signal;

generating a position signal from the microphone signals indicative of a position of the audio source relative to the local videoconferencing system; and

transmitting the audio signal and the position signal to a remote videoconferencing unit.

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53.   (New) The method of claim 52, wherein audio source comprises a videoconference participant.

54.   (New) The method of claim 52, wherein the position signal indicates an angle between the audio source and the remote videoconferencing system.

55.   (New) The method of claim 52, wherein generating a position signal comprises assessing the magnitude of the microphone signals.

56.   (New) The method of claim 52, wherein the microphones are positioned in a linear array.

57.   (New) The method of claim 52, wherein the position signal is used at the remote videoconferencing system to selectively drive at least one of the plurality of speakers in accordance with the position signal to broadcast the audio signal, wherein the driven speakers are indicative of the position of the audio source relative to the remote videoconferencing system.

58.   (New) The method of claim 57, wherein the microphones and speakers are both positioned in a linear array.

59.   (New) A method of operating a processing unit for a local videoconference system, the processing unit being coupled to a display, the method comprising:

> receiving at the processing unit at least first and second video streams from a remote videoconferencing system, wherein the first and second video streams comprise different areas derived from images of an area recorded at a video camera at the remote videoconferencing system; and
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> displaying on the display at least the first and second video streams.

60.   (New) The method of claim 59, wherein the first video stream comprises the entirety of the area.

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61.   (New) The method of claim 59, wherein both the first and second video streams comprise subsets of the area.

62.   (New) The method of claim 59, wherein the second video stream comprises a subset of the area.

63.   (New) The method of claim 62, wherein the subset of the area comprises an area around an acoustic source at the remote videoconferencing system.

64.   (New) The method of claim 63, further comprising determining the position of the acoustic source relative to the remote videoconferencing system.

65.   (New) The method of claim 64, wherein the position is determined by through the interaction between an audio signal from the acoustic source and a plurality of microphones at the remote videoconferencing unit.

66.   (New) The method of claim 65, further comprising receiving at the processing unit the audio signal and the position.

67.   (New) The method of claim 59, wherein the video camera is fixed.

68.   (New) The method of claim 59, wherein the second video stream is displayed on the display within the first video stream.

69.   (New) A method of operating a processing unit for a local videoconference system, the processing unit being coupled to a video camera, the method comprising:

  receiving at the video camera images of an area, and sending the images to the processing unit;

  at the processing unit, generating at least first and second video streams from the images, wherein at least the second video stream comprises a subset of the area; and

transmitting the first and second video streams to a remote videoconferencing system.

70.   (New) The method of claim 69, wherein the first video stream comprises the entirety of the area.

71.   (New) The method of claim 69, wherein both the first and second video streams comprise subsets of the area.

72.   (New) The method of claim 69, wherein the subset of the area comprises an area around an acoustic source at the local videoconferencing system.

73.   (New) The method of claim 72, further comprising determining the position of the acoustic source relative to the local videoconferencing system.

74.   (New) The method of claim 73, wherein the position is determined by through the interaction between an audio signal from the acoustic source and a plurality of microphones coupled to the processing unit.

75.   (New) The method of claim 74, further comprising transmitting the audio signal and the position are transmitted to the remote videoconferencing system.

76.   (New) The method of claim 69, wherein the video camera is fixed.

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